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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LAO, SUE X

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 07/02/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/672,200

Applicant(s)

SLAUGHTER ET AL.

Examiner

S. Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 and 51-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15, 17-28, 31, 33-37 and 51-58 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 16, 29, 30, 32, 38, 59 and 60 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-38 and 51-60 are pending. This action is in response to the election filed 4/12/2004. Applicant has elected, without traverse, Group I (claims 1-38 and 51-60), and canceled claims 39-50.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandle et al (U S Pat. 5,218,699).

As to claim 1, Brandle teaches a method for remotely invoking functions (remote procedure calls) in a distributed computing environment, comprising:

a client (application 100) generating a message (remote procedure call), wherein the message includes information representing a computer programming language (high level language, col. 3, lines 37-39) method call (procedure block 52);

the client sending the message to a service (remote router application 118), wherein the service is configured to perform functions on behalf of the client (execute service procedures 126); and

the service performing a function on behalf of the client in accordance with the information representing the computer programming language method call included in the message (execute service procedure 170, 172). See col. 7, line 4 – col. 8, line 4; fig.s 4-6.

As to claim 2, Brandle teaches the service performs the function on behalf of the client asynchronously to processing on the client (asynchronous mode). Col. 9, line 31 – col. 10, line 18.

As to claim 3, Brandle teaches the client comprises a client method gate (service director 102, remote router service 106 and data mapper 112), wherein said generating a message comprises: the client method gate receiving the computer programming language method call (call 104) from a process (application 100) executing within the client; and the client method gate generating the message for the client (create communication block for transmission, step 156). Col. 8, lines 54-68.

As to claim 4, Brandle teaches the client method gate sending the message to the service (transfer data including service procedure). Col. 8, line 63 – col. 9, line 8.

As to claim 7, Brandle teaches the service comprises one or more computer programming language methods executable within the service (service procedures 126), wherein said performing a function comprises executing a computer programming language method in accordance with the information representing the computer programming language method call included in the message (procedure and parameters). Col. 8, line 57 – col. 9, line 19.

As to claim 8, note discussion of claim 7 and Brandle further teaches the information representing the computer programming language method call includes an identifier of the method call (procedure/call identifier), and wherein said performing a function comprises: regenerating the method call in accordance with the identifier of the method call included in the information representing the method call (extract call identifier and parameters and invokes, col. 9, lines 1-16); and executing a computer programming language method in accordance with the regenerated method call (execute service procedures 126, step 172).

As to claim 9, Brandle teaches the information representing the computer programming language method call further includes one or more parameter values of the method call (parameter block 58), and providing the one or more parameter values from the information representing as parameter values of the method call (mapper extracts data/parameters). Col. 9, lines 9-16.

As to claim 10, Brandle teaches a service method gate (remote router application 118, data mapper 120 and service director 122) configured to provide an interface to computer programming language methods of the service by receiving messages

(transferred) and invoking methods specified by the messages (steps 166, 168, 170, 172), and wherein said regenerating the method call is performed by the service method gate. Col. 8, line 57 – col. 9, line 19.

As to claim 11, Brandle teaches performing a function generates results data (results), the service providing the generated results data to the client (steps 174 - 190).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 6, 17-26, 33-36, 51-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al.

As to claims 5, 6, 35, 36, 54, 55, Java is a well known distributed object-oriented execution environment with remote procedure call capability (RMI). Therefore, it would have been obvious to apply the teaching of Brandle to Java based distributed systems. In so doing, client applications would have been able to invoke Java based service procedures after a technology update. In view of the teaching modified as such, running a client application/process in a virtual machine / JVM would have been obvious.

As to claim 17, note discussions of claim 1 for functions of generate, send and perform and claim 3 for receive. In Brandle, the first two functions are provided in a client node and the last two in a service node. It would have been obvious to implement the client functions by a client device and the service functions by a service device.

As to claims 18, 20, note discussion of claims 2 and 4, respectively.

As to claim 19, it is covered by claim 3 except for the information in the message representing the method call received from the process, which is met by Brandle (remote procedure call including procedure identifier, see discussion of claim 1).

As to claims 21, 22, note discussions of claims 5 and 6.

As to claims 23-26, note discussion of claims 7-9, 11, respectively.

As to claim 33, it is covered by claims 1 and 3. Note the equivalence and access/receiving. It would have been obvious to implement the client and the method gate functions, co-located in a client node, in a device.

As to claim 34, note discussion of claim 2.

As to claim 51, it is a program product claim of claim 1, thus note claim 1 for discussion. It would have been obvious to embody the method steps in a carrier medium for the purpose of portability.

As to claims 52, 53, note discussions of claims 2 and 3, respectively.

As to claims 56, 57, note discussions of claims 8 and 9, respectively.

6. Claims 12, 27, 28, 37, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al as applied to claims 1, 17, 33 and 51 and in view of Duault et al (U S Pat. 5,428,781).

As to claim 12, 37, 58, Brandle teaches storing the generated results data (results) to a space service (queue 116) in the distributed computing environment; and the client accessing the stored results data from the space service (application retrieves results from the queue, col. 7, lines 33-36, 64-66; col. 10, lines 11-13).

Brandle does not teach providing an advertisement for the stored results data to the client, wherein the advertisement comprises information to enable access by the client to the stored results data.

However, Duault teaches communication through queues, including providing an advertisement/notification (E-NE signal) for stored data to a client to enable access by the client to the stored data (col. 3, lines 14-28). Therefore, it would have been obvious to provide an advertisement/notification for the stored results data (stored data) to the client to enable access by the client to the stored results data in Brandle. One of ordinary skill in the art would have been motivated to combine the teachings of Brandle and Duault because this would have rendered the execution of service procedures more fault tolerant (col. 2, lines 38-40).

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As to claim 27, note discussion of claim 12, steps of storing and providing.

As to claim 28, note discussion of claim 12, step of client accessing.

7. Claims 15, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al in view of Duault et al as applied to claims 12, 27 and further in view of Cuomo (U S Pat. 6,185,614).

As to claims 15, 31, Cuomo teaches using Uniform Resource Identifiers (URIs) to access data/resources (col. 4, lines 4-36). Therefore, it would have been obvious to a URI to identify the stored results (resources to application) of Brandle. One of ordinary skill in the art would have been motivated to combine the teachings of Brandle and Cuomo because this would have provided the capability of returning dynamically generated results (Cuomo, col. 2, lines 6-11).

8. Claims 13, 14, 16, 29, 30, 32, 38, 59, 60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (703) 305 9678. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Sue Lao 

June 25, 2004